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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,222

09/18/2003

Itzhak Levy

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06/07/2006

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EXAMINER

SORRELL, ERON J

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,222

Applicant(s)

LEVY, ITZHAK

Examiner

Eron J. Sorrell

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Wood et al. (US Pub. No. 2003/0115413 hereinafter "Wood").

3. Referring to claim 1, Wood teaches a computer system (figure 3), comprising:

a processor (item 302, figure 3) generating data output in serial ATA format at a serial ATA connector (see paragraph 32 on page 3));

a serial ATA cable (item 312, figure 3) connected to the serial ATA connector (see paragraph 33 on page 3);

a hard disk drive adapter (combination of items 314 and 324) forming an intermediate adapter connected to receive the

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data output from said processor and configured to distribute the data output to a plurality of channels (see paragraph 42 on page 4); and

a plurality of data storage devices (see items labeled "DISC DRIVE" in figure 3) each connected to said hard disk drive adapter via a respective serial ATA cable and each receiving the data output of a respective channel (see paragraph 42).

4. Referring to claim 2, Wood teaches the intermediate adapter is configured to mirror or split the data output to the plurality of channels (see paragraph 34 on page 3).

5. Referring to claim 3, Wood teaches the processor is a central processor of the computer system (see paragraph 32 on page 3).

6. Referring to claim 4, Wood teaches the processor is configured to generate the data in serial ATA format and said intermediate adapter is configured to communicate in the serial ATA standard (see paragraphs 33 and 38 on pages 3 and 4, respectively).

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7. Referring to claim 5, Wood teaches a hard disk drive adapter configured to form an intermediate adapter (combination of items 314 and 324, in figure 3), comprising:

a serial ATA interface for communicating with a central processor (see paragraph 33 on page 3),

a plurality of serial ATA interfaces each for communicating with a respective serial ATA storage device (see paragraph 38 on page 4), and

means for mirroring, or splitting, a data input from the central processor to a plurality of channels each assigned to a respective one of the serial ATA interfaces for communicating with the serial ATA storage devices (see paragraph 34).

8. Referring to claim 6, Wood teaches the intermediate adapter is configured to implement automatic, substantially instantaneous RAID 1 hard disk drive mirroring, or other disk data transfer, with serial ATA (see paragraph 34 on page 4).

9. Referring to claim 7, Wood teaches a computer system having a processor generating data output and at least one data storage device for receiving and storing the data output (see figure 3), the improvement which comprises:

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a plurality of serial ATA data storage devices (see paragraph items labeled "DISC DRIVE" in figure 3 and paragraph 42 on page 4);

an intermediate adapter (combination of items 314 and 324, in figure 3) connected between the processor and the data storage devices for receiving the data output from the processor and for outputting the data to the data storage devices (see paragraph 42 on page 4); and

means connected in said intermediate adapter for distributing the data output to a plurality of channels (see items labeled "PORT CONTROLLER" in figure 3 and paragraph 42 on page 4);

a plurality of serial ATA connections connecting each of the channels to a respective one of said serial ATA data storage device (see paragraph 29 on page 3).

10. Referring to claim 8, Wood teaches serial ATA connections are serial ATA cables connecting the channels of said intermediate adapter to the data storage devices (see paragraphs 29 and 33 on page 3).

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Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Stolowitz (U.S. Patent No. 6,772,108).

13. Referring to claim 9, Wood fails to teach the intermediate adapter is entirely transparent to the computer system.

Stolowitz teaches in an analogous system, an intermediate storage adapter that is entirely transparent to the system (see lines 17-30 of column 3). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Johnson with the above teachings of Stolowitz. One of ordinary skill in the art would have been motivated to make such modification in order to enable RAID mirroring without adding any overhead to the processor as suggested by Stolowitz (see lines 17-30 of column 3).

Response to Arguments/Amendment

14. Applicant's arguments with respect to claims 1,5, and 7 have been considered but are moot in view of the new ground(s) of rejection.

15. The applicant's amendment to claim 1 is more than simply incorporating the limitations of claim 3. Amended claim 1 now requires that the processor generate data output *in a serial ATA format* (emphasis added).

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will

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expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EJS

May 30, 2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER

6/5/06